Conical jars, vessels, pottery etc., recovered at Nerumbur, and other sites, used for different purposes in the Indian Civilization

J. Soundararajan | K. V. Ramakrishna Rao
University of Madras

Introduction: The "Conical jars" found at different Indian sites, as popularly identified by the archaeologists, excavators of the ancient sites and interpreting historians, and generally consider them as foreign origin, that too, that of "Roman." Later, some scholars pointed out that such varieties were also manufactured in India and recognized as "imitations." However, of later, other categories were also excavated and found to be used for other than the "Roman" purposes. In fact, the size, shape, whether they are with handles or not, perforated or not, with hole at the bottom or not, clay structure and other details have also to be taken ino consideration before coming to any conclusion.

Karaikkal, Uppanar: It is on the same coast about 40 km from Arikamedu with which it shares many features. It lies on the back waters of Uppanar which could provide the necessary shelter for the anchorage of boats. It is also an extensive mound rich in antiquities which included numerous sherds of fine Rouletted ware, fragments of imported double handled ampharoae, conical jars (Arikarnedu Types 74/75),

Conical jars found at Kanchipuram: fragments of imported double handled ampharoae, conical jars (Arikarnedu Types 74/75 of Wheeler). Excavations in ancient capital town of Kanchipuram[1] have yielded the Rouletted ware besides a large amount of the conical amphorae-like conical jars (Arikamedu types 74/75 of Wheeler), a few of them kept in a row. They clearly indicate the influence of Roman pottery tradition on the local ceramics.

2002- Pattaraiperumbudur conical jars: Pattaraiperumbudur site (130 09 '13' 'N. 790 49' 26 "E) Tiruvallur Diistrict, Tamil Nadu, was identified by D.Thulasiraman, the Asst.Director (Rtd) in the year 2002. An intensive survey of these mounds brought to light, numerous potsherds including black and red ware, black ware, lid knobs of iron age and orange slipped ware, red ware, conical jar pieces of early historical period. Apart from these, stone tools, iron slags, storage jar pieces were also noticed on the surface. Here, the conical jars could have been used for well, "Conical jar Ring well".

2019- Gottiprolu, AP exacavated conical jars: Excavation by Archaeological Survey of India in Gottiprolu, Andhra Pradesh indicated it as a Trade Centre of Early Historic Period, during 2019 and also exposed conical jars. Interesting pottery finds are the base of conical jars placed at the eastern side of the structure. Such conical jars are widely distributed in Tamil Nadu and considered to be imitated variety of Roman Amphorae jars. However, at the same site, it was found that the Conical shaped Terracotta Pipes were used for drainage purpose.

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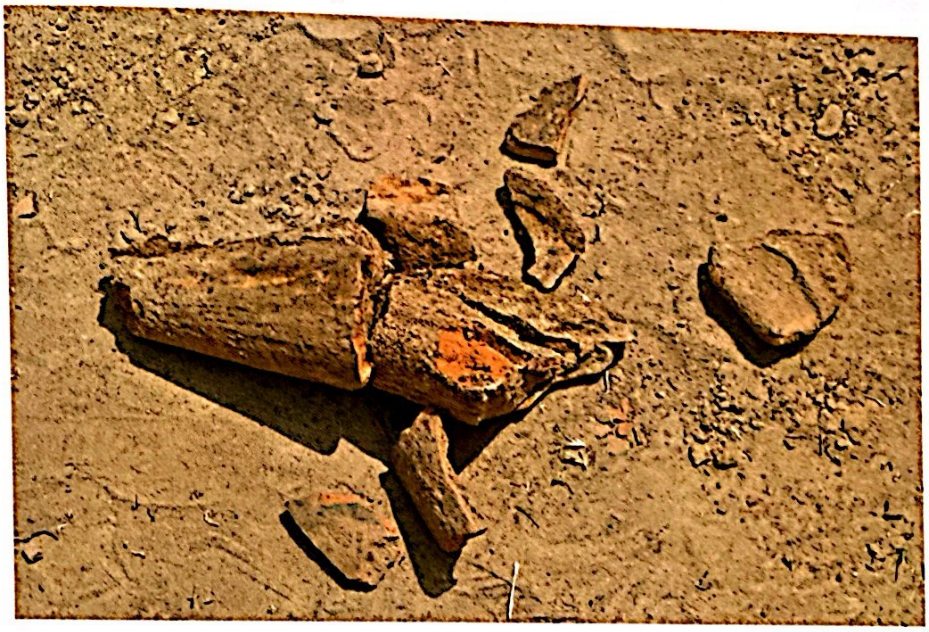
[1] K.V.Raman, *Excavations at Kanchi*, Tamil Civilization, Thanjavur

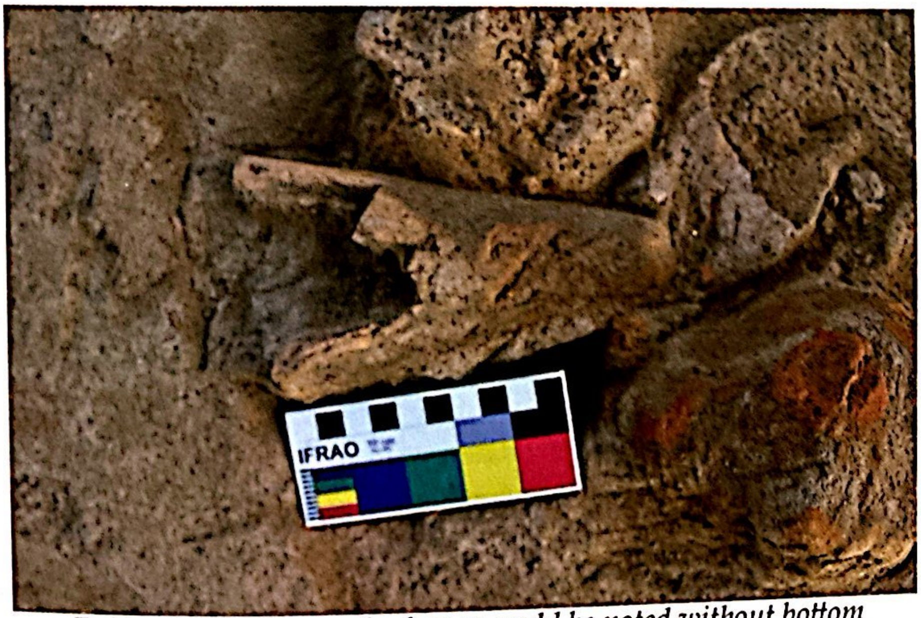
August-October 2021: The remains of a tiled roof and conical jar found during an excavation throw hints of a probable trade connection with ancient Rome. Another antique object found in the superficial study was a conical jar, but, interpreted that it was used to store liquids. Earlier in August, the excavation work had found the remains of an ancient canal-like structure on the subsurface of Porpanaikottai[2], i.e, these conical jars culd be used for carrying waters as pipes.

A full sized conical jar with perforation found at the same site which might have used for filtering purpose. Almpst most of the early historical sites in tamilnadu yieded this type of pottery. It is mainly used for storing items like oil, wine or other liquid items

2022 - Nerumbur excavated samples:



The pieces parts and bottom portions of conical jars found



Evidently, the jar was broken as could be noted without bottom and upper portions (Nerumbur, 2022)

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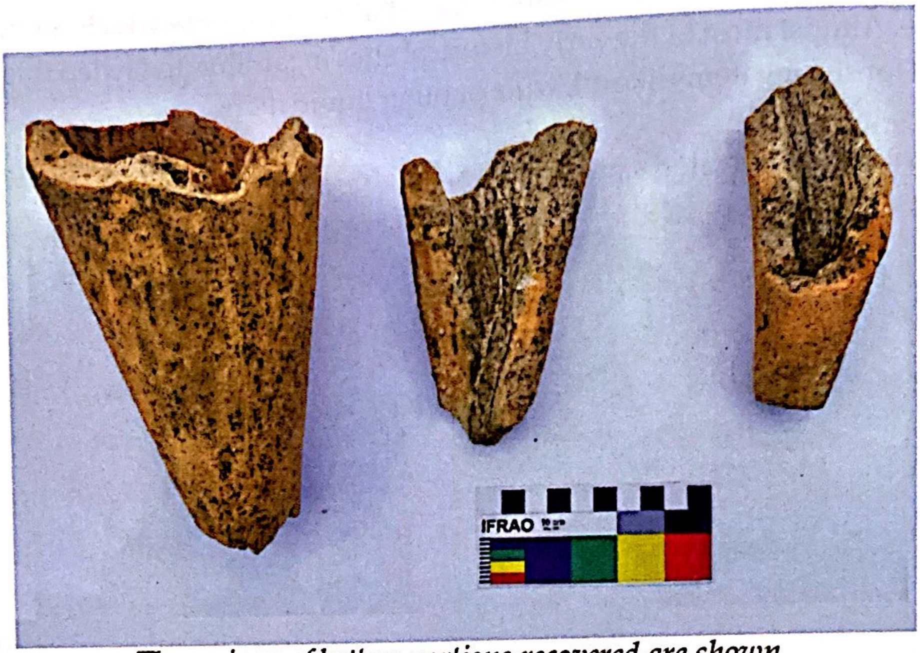
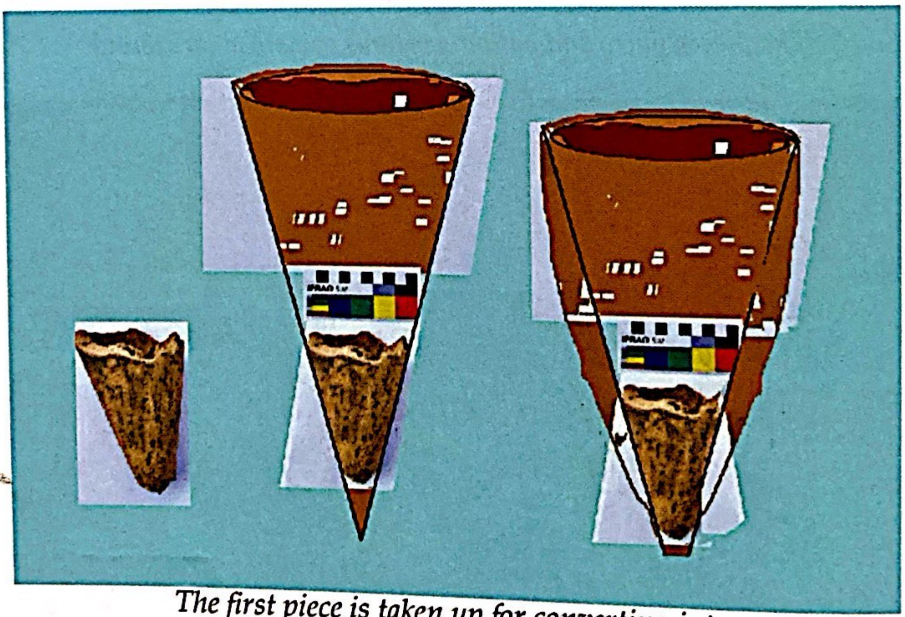
[2] Times of India, ***Pudukottai artefacts hint at Roman link***, Oct 9, 2021, 04:34 IST. https://timesofindia.indiatimes.com/city/trichy/pudukottai-artefacts-hint-at-roman-link/articleshow/86879293.cms

Definitely, these are not the so-called amphora, as they were without handles t the top. Then, what purpose, these jars were manufactured has to be analyzed. If the bottom is flat, it can be visualized and changed accordingly. The third piece shows that it is of the flat bottomed jar. Such a modified diagram is also shown below. They mtch with the specimens of the Vasavasamudram excavated conical jars.



Three pieces of bottom portions recovered are shown.
(Nerumbur, 2022):

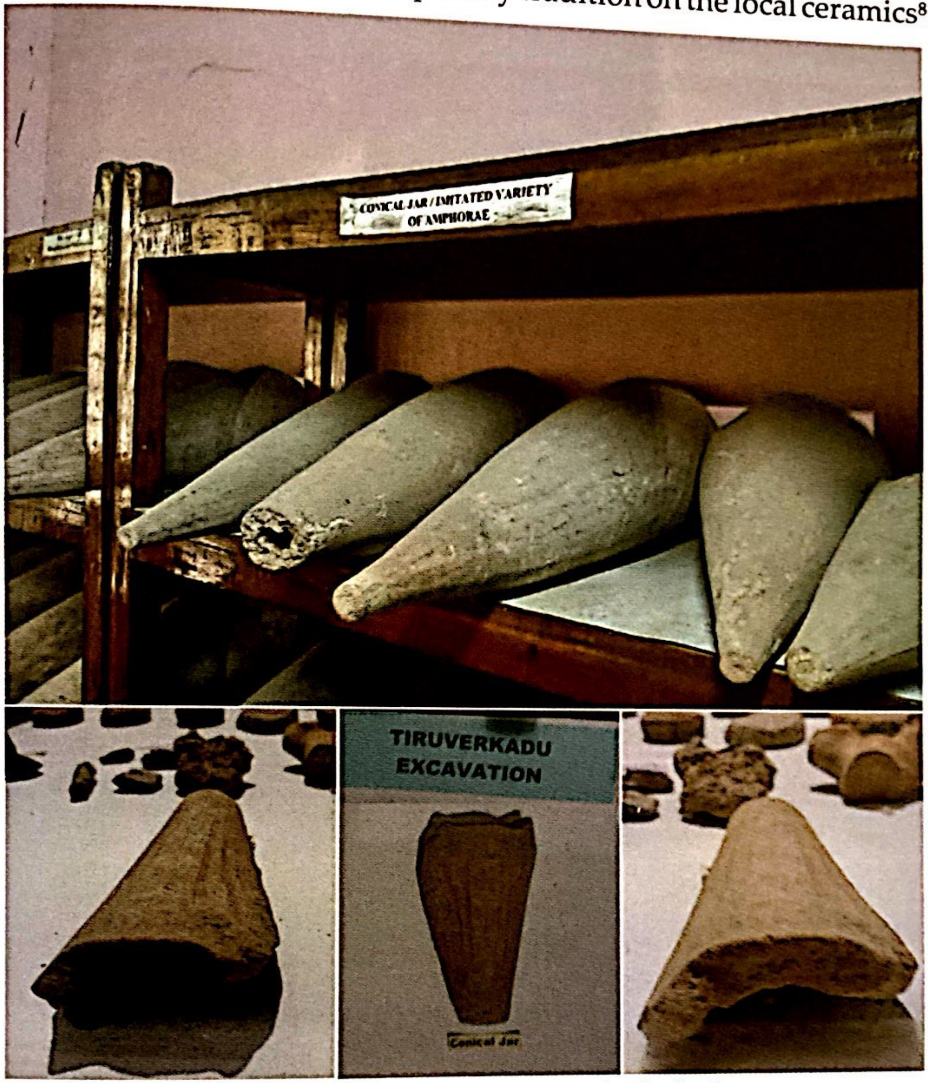


The first piece is taken up for converting into conjectural full view of the jar

Discussion about conical jars: Parts and pieces of Conical jars have been recovered during the Nerumbur excavation, Thandalnagar sites, now in February-March 2022 excavations.

Earlier, they were also found at Kanchipuram[3], Tiruverkadu, Kanchipuram, Saluvankuppam[4], Vasavasamudram[5], Nerumbur[6], Arpakkam[7] (Kanchipuram Dist) and Kairaikkudi during the excavations carried on by the Department of Ancient History and Archaeology, Madras University and the Tamilnadu State Archaeological Department.

K. V. Raman pointed out that they clearly (Rouletted ware and conical amphorae-like conical jars) indicate the influence of Roman pottery tradition on the local ceramics[8].



The broken piece found at Tiruverkadu is shown in different angles

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[3] Excavations in ancient capital town of Kanchipuram have yielded the Rouletted Ware besides a large amount of the conical amphorae-like conical jars a few of them kept in a row. They clearly indicate the influence of Roman pottery tradition on the local ceramics
K.V.Raman, ***Excavations at Uraiyur,*** University of Madras, Madras, 1968.

[4] Indian Archaelogy – A Review, 1969-1970, p.34; IAR, 2006-2007, p. 111

[5] R. Nagaswamy and A. Abdul Majeed, ***Vasavasamudram (A Report on the Excavation Conducted by the Tamilnadu State Department of Archaeology),*** Madras, 1978, pp. 11, 21-2, Fig. 14; IAR, 1972-1973, p.31 – Vasavasamudram and
Vayalur associated with Roman trade.

[6] T. Sreelakshmi, ASI reportedly found during exploration, but, no report is found in IAR.

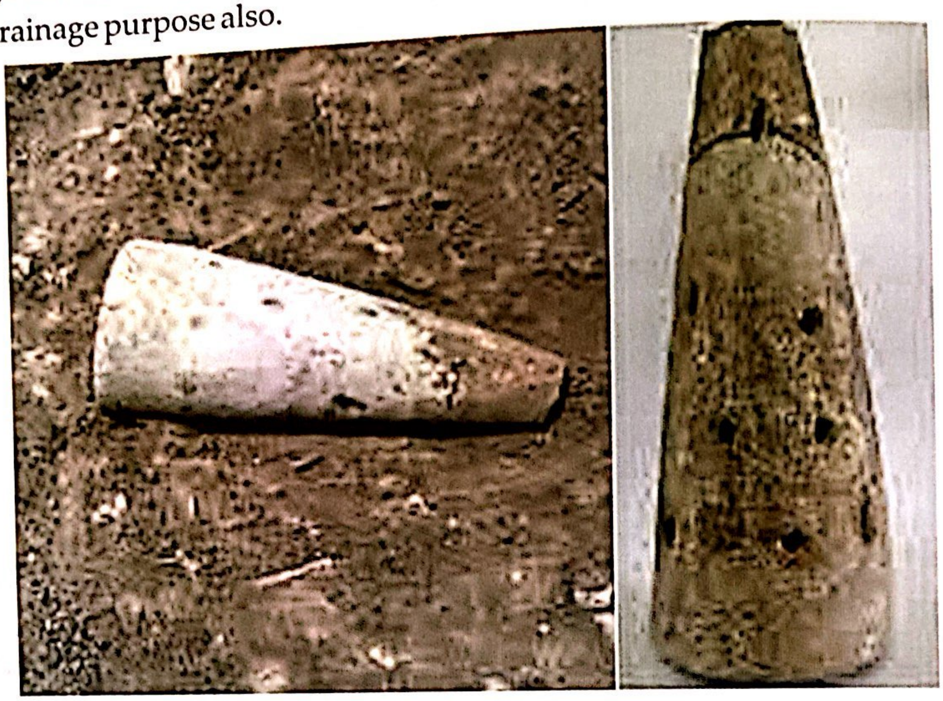
[7] Indian Archaelogy – A Review, 2013-14, p.136.

[8] K. V. Raman, ***Roman contacts with Tamilnadu (South Eastern India - Recent Findings),*** UNESCO Silk Roads Maritime Route Seminar, Bangkok, 1991.
http://ar.unesco.org/silkroad/sites/default/files/knowledge-bank-article/roman_contacts_with_tamilnadu.pdf

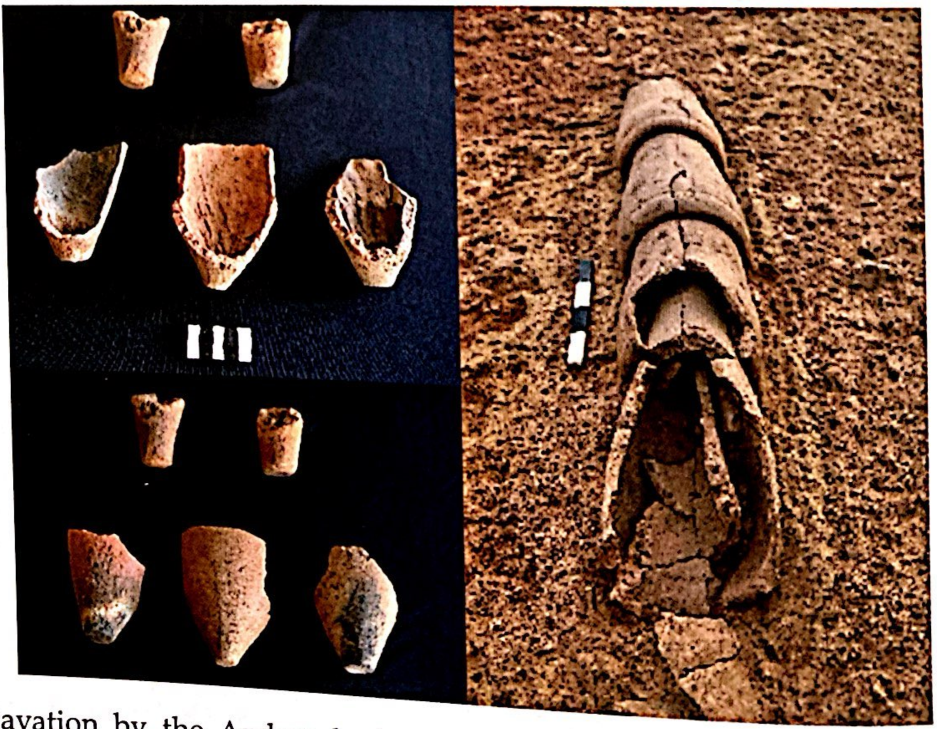
They can be compared with the varieties recovered by the department during the earlier excavations. The "imitated varieties" are kept in the Museum itself.

Therefore, after 75-100 years, there is nothing surprise that such ware to be discovered and recovered during the excavations.

Recently, ASI has also pointed out that such vessels were excavated in South India and they were used for drainage purpose also.

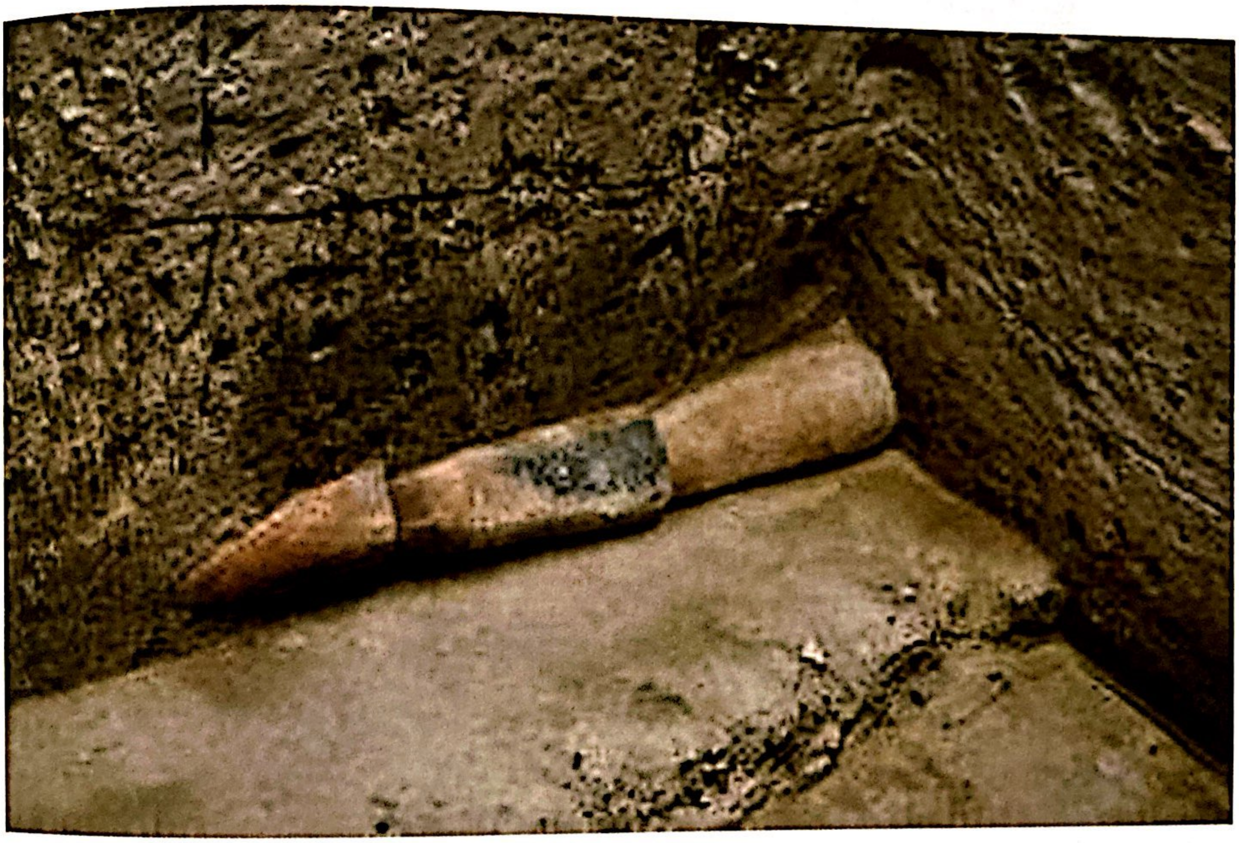


Exposed Conical Jar
Pattaraiperumbudur Excavation (2015-2016)
Tiruvallur District



An excavation by the Archaeological Survey of India (ASI) in Gottiprolu in Andhra Pradesh's SPS Nellore district has indicated that the area may have been a huge settlement and flourishing trade centre, over 2,000 years ago[9]. Interesting pottery finds are the base of conical jars placed at the eastern side of the structure. Such conical jars are widely distributed in Tamil Nadu and considered to be imitated variety of Roman Amphorae jars[10]. A series of broken terracotta pipes fitted into one another revealed about the civic amenities maintained by the occupants of this site.

The drainage system pattern is understood by the exposed remains of the drainage at the site. A series of broken terracotta pipes fitted into one another revealed about the civic amenities maintained by the occupants of this site. The drainage system pattern is understood by the exposed remains of the drainage at the site.



This is the photo published by Amarnath Ramakrishna, ASI about the conical jars used as drainage system during 200 BCE in a Keeladi site[11]. "A terracotta drain pipe found broken at two places. Three types of drains were found in the excavation: open drains lined with bricks, closed drains boxed with bricks, and terracotta pipe drains. Some of the drains led to soak jars, indicating the use of advanced sanitation methods." Though, it is prominently figuring in the Keeladi exhibition photos also, no discussion is made. If this evidence is taken, it can be interpreted that the people of Tamilnadu were having the technology of manufacturing such conical jars, rather pipes used for drainage in 200 BCE itself and therefore, such conical pipes, with or without holes at the bottom were indigenously manufactured.

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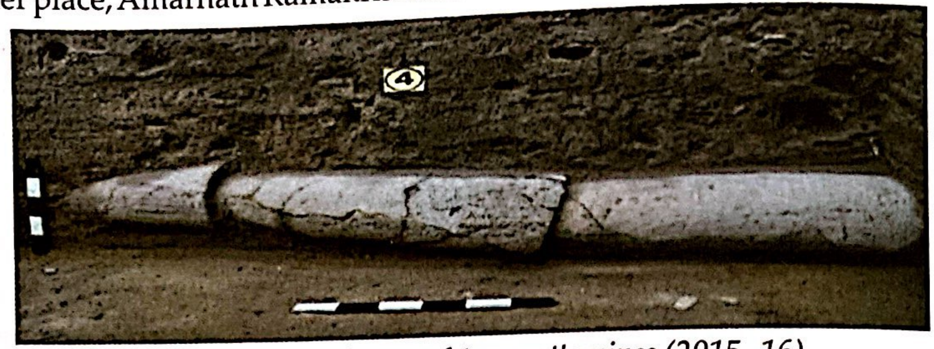
[9] Press Information Bureau, Government of India, Ministry of Culture, Excavation by Archaeological Survey of India in Gottiprolu, Andhra Pradesh indicate it as a Trade Centre of Early Historic Period, 31-October-2019 17:59 IST.

[10] https://pib.gov.in/newsite/PrintRelease.aspx?relid=194137

[11] https://sivaganga.nic.in/tourism/keezhadi-excavation/

In another place, Amarnath Ramakrishna mentioned as follows[12]:

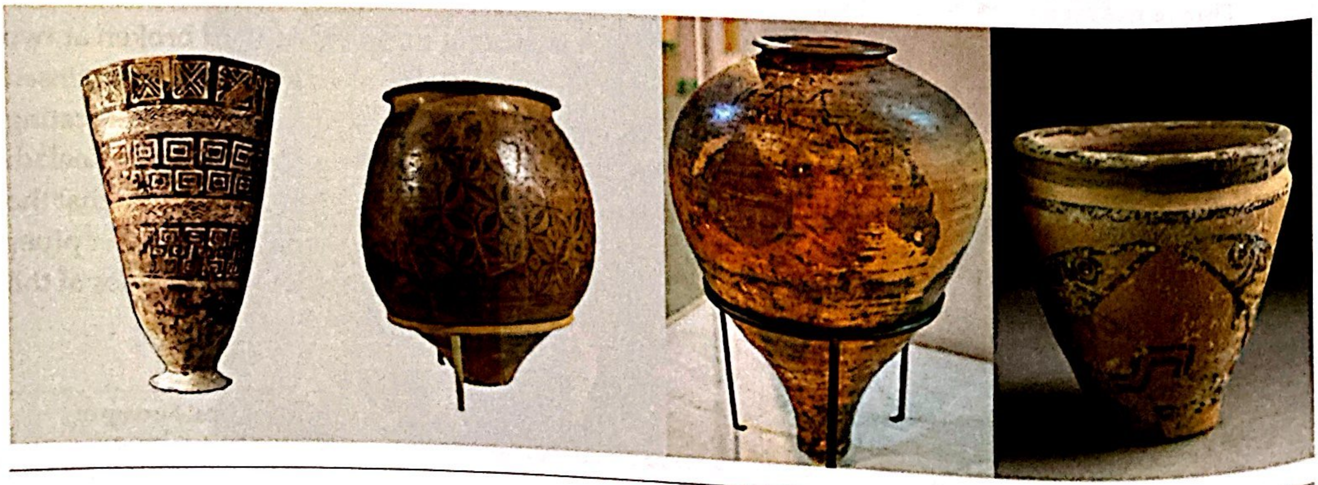


Close-up view of exposed terracotta pipes (2015 -16)

> *In this area, almost all the quadrants have yielded structural activities in the form of walls, channels etc. Another interesting feature found here was that of the remains, reflecting the civic sense of the people in the form of terracotta pipes fixed with one another probably discharging the sewage water to the soakage jars. Two such soakage jars(?) were found with multiple pots kept one above another was found nearby the terracotta pipes. Its north end was found to be connected with a hemi spherical pot.*
>
> *Indian Historical Studies - Vol. XV (No. 2) & Vol. XVI (No.1)*

Here, he says, "terracotta pipe," "soaking jars (?)," and "half-spherical pot," and therefore, for one excavated object, three different expressive descriptions need not have been given. He could have very well mentioned them as "conical pipes," as half-spherical or elongated half-spherical is nothing but conical shape. Thus, here, the issue has been such pipes were with holes, a new variety manufactured locally and used for drainage purposes, with wide-mouth for fixing and joining and the narrow reduced bottom for controlling the big particles that might block the drainage system. However, the Conical jars recovered at the NBR sites have been closed bottom and hence they were used for storage purposes.

Comparing with other varieties of India – From IVC onwards: Conical jars have been found and recovered from the Indus Valley, Mohanjodaro and Harappan sites. Some of them have been shown below:



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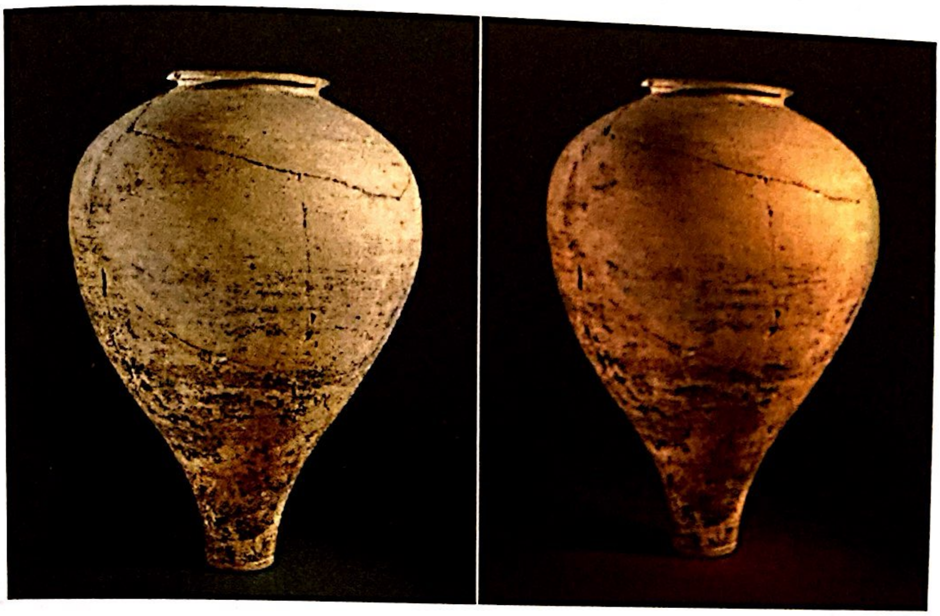
[12] K. Amarnath Ramakrishna, Keeladi Excavations – Thirupuvanam Taluk, Sivagangai District, Tamil Nadu, (2014-15 & 2015-16), Indian Historical Studies, Vol.XV (No.2) & Vol.XVI (No.1), p.13.

Amphora type conical jar has always been associated with the Romans and thus, wherever, such pottery, broken pieces and potsherds are found, immediately, they are identified as "Roman" and assigning date to the first centuries. However, the stratigraphical and associated other embedded objects and their dating show that they belong to different periods from medieval to early modern and modern.



These jars have been identified as "storage jars" dated to c.2500 BCE, but not as Amphora. The non-Indian or Roman varieties do not have holes at the bottom, whereas, the Indian ones had holes. The former category had handles, but the latter category did not. Had Indians wanted, they could have followed the Indus-Harappan technology of manufacturing conical jars for their purposes and they need not have waited for 2500 years to buy from the Romans. The researchers have pointed out as to how the Mohanjadaro-Harappans were trading with their contemporary civilizations as the IVC-type pottery, seals and other evidences have been found[13]. If that is the case, they might have been influenced the Romans when such technology spread to other parts, when the IVC collapsed and disappeared.

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Incidentally, the "conical" shapes, concepts and usage also changed in the non-Indian and Indian cultures. In the non-Indian the conical portion at the bottom is associated with drinking cups.

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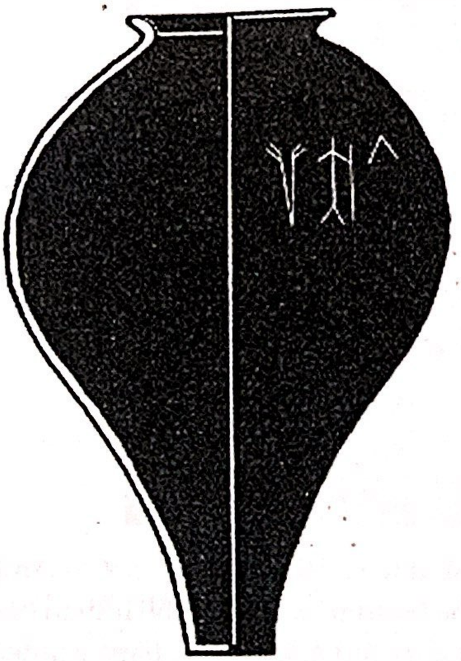
[13] Frenez, Dennys. The Indus civilization trade with the Oman Peninsula, In the Shadow of the Ancestors: The Prehistoric Foundations of the Early Arabian Civilization in Oman–Second Expanded Edition, Ministry of Heritage and Culture, Oman (2018): 385-396.

However, in Indian context, the conical shape has been made upside down in transferring and measuring highly inflammable liquids. Ironically, the liquids were / are supposedly containing the same chemical organic compounds. As the cultures and concepts differ, the geometrical pattern used differed exactly opposite.



Harappan jar found in Oman

The Indus categories of Conical bottom jars, pottery and storage vessels can be identified with their characterstic size shape and colour.

Around c 3000-2500 BCE, no such storage vessels were manufactured in any other civilization.

Moreover, the huge potter vessels were used for carrying goods and delivered at the destinations.

As they were cheap and economical, they were used as good carrying containers for transport and delivery.

The earthen vessels were also maintain warm temperature and keep the contents in the controlled temperature.

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In India, they are still used for the specified requirement for storage and preservation of cooked food items, pickles and dried food varieties. In fact, some conical type jars were used as Clepsydra, water clock and time measurement devises in the IVC.

S. Gurumurthy has also dealt with "Roman pottery in South India," and pointed out that copies, imitations and locally manufactured varieties are there in the Arretine, roulette and amphorae[14]. Of course, Mortimer Wheeler himself pointed out this aspect[15]. After verifying many

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[14] S. Gurumurthy, Ceramic Traditions of South India, University of Madras, Madras, 1981, pp.298-305.

[15] Mortimem Wheeler, Arikamedu, in Ancient India, No.2, 1946, pp.40-41.

specimens including parts and shreds, B. B. Lal, M. N. Deshpande[16], T. V. Mahalingam[17] and R. Subrahmanyam[18] also came to the same conclusion. R. Subrahmanyam has dealt with exhaustively comparing the specimens found at different levels marked as phase – I, II, III etc. The last phase was dated to 4th to 8th cent CE and the earliet one dated to c.2nd cent BCE, because of the Buddhist names found inscribed with brahmi script. Thus, he concluded that they were indigenous.

The rouletting designs consist of minute triangles: diamonds or parallelograms; wedges, or uprights crescents; ovals or dots; or an eye-shaped device which is like attentiated diamond. Some examples are -XXXXXXXXXXXXXX- The design with triangle is very common occurring in all strata. In most of the cases, they are taken for granted and assigned to first centuries of the current era and that is not correct, as they are found in all layers of the strata along with the other embedded objects that are dated to medieval to modern periods. Therefore, unless proper scientific dating is done, no irrefutable date or definite conclusion can be drawn.

Conclusion: In view of the above discussion about the different excavated objects of pottery, ceramic vessels, conical jars of different varieties, various sizes and divergent usages, the following points are submitted as conclusion:

The pottery, pottery technology, design and manufacture, clay mixing, firing, curing and related techniques had been the unique practices of the people of ancient civilizations.

Such expertise had been developed and completed for routine manufacture with standards attained and the usage-purposes determined.

Thus, each pottery, ceramics and conical category was manufactured accordingly with the intended purpose. Of course, the availability of raw materials, inputs and labour were available nearby.

Had such technology been there at Mohanjadaro-Harappan sites, naturally, it could have been percolated and spread to other areas in all sides.

Had Tamils or Dravidians been the authors of IVC, naturally, they must have taken such technical knowhow from IVC to Tamiraparni or Vagai or Keeladi civilization.

They need not have copied, borrowed or imitated from the Romans, "Aryans" and others. In fact, others must have copied, borrowed or imitated from the Dravidians or Tamils.

In any case, other than Amphora-type were manufactured in India only and indigenous.

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[16] M. N. Despande, Roman Pottery in India, edited by B.P.Sinha, Patna University, Patna, 1969, pp.275-281. He discussed about all types and pointed out the fact that these pottery and potsherds were found in all starta of excavations at many places.

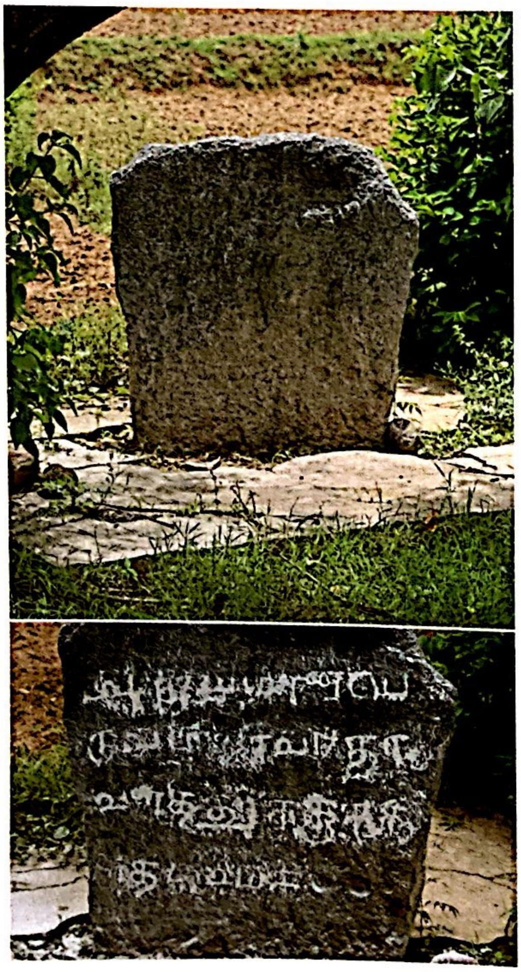
[17] T. V. Mahalingam, Ceramic Industries in South India, in "Potteries in ancient India", edited by B.P.Sinha, Patna University, Patna, 1969.

[18] R. Subrahmanyam, Salihundam, A Buddhist site in Andhrapradesh, Govt of Andhrapradesh, Hyderabad, 1964, pp. 43-45 etc.

The ancient Tamilagam excavated samples had been indigenous and used for the following purposes –

1. Storage of grains, seeds, liquids, oils
2. Water pipes – carrying water from one to another (water management, conical shape for settling the particles to settle down so that pure water is transported)
3. Drainage – for carrying waters of all sorts – drinking, sewerage, storm water, excess water etc.
4. Ring well – easy for reaching the depth and also perforations help seepage, accumulation.
5. Time-clock – as found in IVC, Dhakshasila and other sites.
6. Metallurgical pot – all smiths used for holding liquid metal or alloys, particularly, jewelers used smaller vessels.
7. Burial Urn – Manimekhalai describes.

Comprehensive and comparative study shows that there had been common or similar ceramic technology known to people of India during the ancient period. ■



அதியமான் பெருவழிக் கல்

மோகன்காந்தி
தூய நெஞ்சக் கல்லூரி | திருப்பத்தூர்

திருப்பத்தூர் மாவட்டம் கொண்டப்பநாயக்கன் பட்டியில் அதியமான் பெருவழியில் நடப்பட்ட மூன்றாவது காதக்கல் கண்டுபிடிக்கப்பட்டுள்ளது. இதற்கு முன்பு கண்டுபிடிக்கப்பட்ட இரண்டு பெருவழிக்கற்களும் தருமபுரி மாவட்டத்தில் தருமபுரியை ஒட்டி கண்டுபிடிக்கப்பட்டன. அவற்றுள் ஒன்று தருமபுரி அரசு அகழ் வைப்பக அருங்காட்சியகத்தில் வைக்கப்பட்டுள்ளது. இம்மூன்றாவது காதக்கல்லானது இதுவரை யூகித்ததற்கு மாறாக திருப்பத்தூர் மாவட்டத்தில் கண்டுபிடிக்கப்பட்டது சிறப்பு. வாணியம்பாடியில் அதிதீஸ்வரர் கோவிலும், ஆந்திராவில் மதனப்பள்ளி புங்கனூர் அருகில் உள்ள லட்டிகம் ஊரில் உள்ள சிவன் கோவிலும் பிற்கால அதியமான்களால் உருவானவை. இப்பெருவழிக்கல் அத்திசையில் அமைந்திருக்கிறது.

1. **அதியமான்பெ**
2. **ருவழிநாவற்தா**
3. **வளத்துக்குக்கா**
4. **தம் 2யக 000**

எனப் பொறிக்கப்பட்டுள்ளது.